

REMARKS

Applicant is in receipt of the Office Action mailed January 27, 2004. Applicant has amended claims 66-88, 90, 92-95, 103, 105, 111, 113, and 119 to correct minor errors. New claims 125-145 have been added to more fully and completely claim Applicant's invention. No new matter has been added. Reconsideration of the present case is earnest requested.

Section 102 Rejections

Claims 65 – 124 were rejected under Section 102(e) as being anticipated by Ohara et al. (US Patent No. 6,366,300). This rejection is respectfully traversed.

As the Examiner is certainly aware, anticipation requires the presence in a single prior art reference disclosure of each and every element of the claimed invention, arranged as in the claim. *Lindemann Maschinenfabrik GmbH v. American Hoist & Derrick Co.*, 221 USPQ 481, 485 (Fed. Cir. 1984). The identical invention must be shown in as complete detail as is contained in the claims. *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989).

Moreover, an 'anticipating' reference must describe all of the elements and limitations of the claim in a single reference, and enable one of skill in the field of the invention to make and use the claimed invention. *Bristol-Myers Squibb Co. v. Ben Venue Labs., Inc.*, 246 F.3d 1368, 1378-79 (Fed. Cir. 2001); *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226 (Fed. Cir. 1989).” *In re Merck & Co., Inc. v. Teva Pharm. USA, Inc.*, 347 F.3d 1367, 1372 (Fed. Cir. 2003).

Claim 65 recites:

65. A computer-implemented method for automatically generating a new graphical program, comprising:

executing a graphical program generation (GPG) program;

the GPG program receiving information, wherein the information specifies functionality of the new graphical program, wherein the information does not specify specific objects for the new graphical program; and

the GPG program automatically generating the new graphical program in response to said information specifying the functionality of the new graphical program, wherein the new graphical program implements the specified functionality, and wherein the new graphical program comprises a plurality of interconnected nodes that visually indicate the functionality of the new graphical program;

wherein said automatically generating the new graphical program is performed without direct user input specifying the new graphical program.

Applicant respectfully submits that the present claims are allowable over the Ohara reference. The Ohara patent uses the phrase “automatically generating a program” (col. 16, lines 27-28), as cited by the Examiner, but the specification is very clear that Ohara involves a user using a graphical editor, specifically, “a visual programming method and system” (see, e.g., Abstract, Title, Claim 1, etc.), where the user is required to manually specify/create a graphical layout diagram by manually selecting graphical objects and manually specifying their behavior, in response to which Ohara’s system automatically generates a program (notably *not* a graphical program) based on the *manually* specified/created graphical layout diagram.

For example, at the beginning of the Ohara patent in col. 1, lines 23-18, Ohara states that the invention is:

“a visual programming method and a system adopting the method. More particularly, the present invention relates to a ***visual programming method***, that is, ***a user interface technique*** capable of automatically generating a program by selecting an object defining a behavior, defining the behavior and setting behavioral rules ***by means of a graphical editor***.”

Applicant respectfully submits that the Examiner has incorrectly equated Ohara’s user specified/created graphical layout diagram with Ohara’s automatically generated program, and that Ohara fails to teach the features and limitations of Applicant’s invention as represented in claim 65.

For example, Applicant submits that Ohara fails to teach or suggest “the GPG program receiving information, wherein the information specifies functionality of the new graphical program, wherein the information does not specify specific objects for the new graphical program”, and nowhere teaches or suggests “the GPG program

automatically generating the new graphical program in response to said information specifying the functionality of the new graphical program, wherein the new graphical program implements the specified functionality, and wherein the new graphical program comprises a plurality of interconnected nodes that visually indicate the functionality of the new graphical program”, nor “wherein said automatically generating the new graphical program is performed *without direct user input specifying the new graphical program*”, as recited in claim 65.

For example, Applicant submits that Ohara’s graphical layout diagram, which the Examiner has asserted is equivalent to Applicant’s graphical program, is not an executable graphical program, but rather is a specification, where Ohara’s automatically generated program (*not* a graphical program) is generated based upon this specification (the layout diagram). In fact, nowhere does Ohara ever mention, or even hint at, automatically generating a graphical program as described and claimed by Applicant. Rather, Ohara is directed to a user interface technique whereby the user *manually* specifies (by selecting various graphical objects) a layout diagram (similar to a rudder diagram), which in turn is used to generate the program.

Additionally, regarding the limitation “the GPG program receiving information, wherein the information specifies functionality of the new graphical program, wherein the information does not specify specific objects for the new graphical program”, Applicant submits that Ohara teaches that the user *manually* specifies, i.e., selects graphical objects for, Ohara’s graphical layout diagram. For example, Ohara states:

“in the system adopting the visual programming method according to the present invention, the transfer means transfers a plurality of graphical objects *selected by a user from among the graphical objects displayed* by the display means for creating and displaying graphical objects each defining a behavior to the layout diagram.” (col. 10, lines 51-58).

and

“With the visual programming method provided by the present invention, *in order to automatically generate a program of a PLC, the user* executes the steps of *selecting an output signal defining a behavior; selecting a behavior; selecting signals relevant to the behavior; setting behavioral rules; and confirming the behavior.*” (col. 16, lines 29-32)

Additionally, claim 1 of Ohara recites in pertinent parts:

“a third step of connecting a first graphical object *selected by a user* from the graphical objects...to a second graphical object selected by the user from the graphical objects...” (col. 66, lines 9-14)

“a fourth step of allowing *a user to select a graphical object or a plurality of graphical objects* from said graphical objects each used for defining a function ...”(col. 66, lines 16-18)

“a seventh step of allowing *the user to select one of said graphical objects* each used for defining a function...” (col. 66, lines 25-26)

Similar user-selection of graphical objects is also included in the eighth and ninth steps of claim 1.

Furthermore, Applicant notes that Ohara explicitly excludes automatic generation of a program from the description of Ohara’s invention:

“In the following description, only matters related to the user interface characterizing the visual programming method are explained, excluding automatic generation of a program *because the automatic generation of a program is the same as the conventional system.*” (col. 16, lines 26-28)

In other words, Ohara does not consider the automatic generation of the program in Ohara’s system and method to be novel, and does not disclose how it is performed, other than to say it is performed according to prior art approaches. Additionally, as noted above, Ohara does not teach or suggest that the automatically generated program is a graphical program as defined in claim 65 and the specification. Moreover, Applicant further notes that Ohara’s automatically generated program is for deployment to an embedded system, specifically, a programmable logic controller. Applicant respectfully submits that such devices are not normally capable of executing graphical programs as defined in the present application.

Additionally, Applicant respectfully submits that even were Ohara’s layout diagram an executable graphical program, which Applicant argues it is not, Ohara still fails to teach “wherein said automatically generating the new graphical program is performed without direct user input specifying the new graphical program”, since

Ohara's layout diagram is neither automatically generated, nor generated "without direct user input specifying the new graphical program".

Thus, for at least the reasons provided above, Applicant asserts that Ohara fails to teach all the features and limitations of claim 65, and so claim 65 and those claims dependent therefrom are patentably distinct and non-obvious over Ohara, and are thus allowable.

Claims 116, 118, 121, and 135 include similar limitations as claim 65, and so the above arguments apply with equal force to these claims. Thus, for at least the reasons provided above, Applicant submits that claims 116, 118, 121, and 135, and those claims respectively dependent therefrom, are patentably distinct and non-obvious over Ohara, and are thus allowable.

Regarding claim 112, Applicant respectfully submits that Ohara similarly fails to teach all the features and limitations contained therein.

Claim 112 recites:

112. A computer-implemented method for automatically modifying an existing graphical program, comprising:

executing a GPG program;

the GPG program receiving information during program execution, wherein the information specifies functionality to add to the existing graphical program, wherein the information does not specify specific objects to add to the existing graphical program;

the GPG program automatically modifying the existing graphical program in order to implement the specified functionality, in response to receiving the information, wherein the existing graphical program comprises a plurality of interconnected nodes that visually indicate the specified functionality of the existing graphical program;

wherein said automatically modifying the existing graphical program modifies the existing graphical program without direct user input specifying the modification to the existing graphical program during said modifying.

Applicant submits that Ohara nowhere teaches or suggests a “GPG program receiving information during program execution, wherein the information specifies functionality to add to the existing graphical program, *wherein the information does not specify specific objects to add to the existing graphical program*”, nor “the GPG program automatically modifying the existing graphical program in order to implement the specified functionality, in response to receiving the information, wherein the existing graphical program comprises a plurality of interconnected nodes that visually indicate the specified functionality of the existing graphical program”, wherein “*said automatically modifying the existing graphical program modifies the existing graphical program without direct user input specifying the modification to the existing graphical program during said modifying*”. In other words, Ohara fails to teach automatically modifying a pre-existing graphical program based on information that does *not* specify the objects added to the graphical program.

Rather, Applicant submits that according to Ohara, any modification to the program is specified directly by the user, e.g., by manually selecting additional objects in the same way that the original layout diagram is created. For example, Ohara recites:

“In addition, according to the present invention, the step of generating a behavioral rule not set yet from already set behavioral rules further *includes a step of allowing the user to modify a generated behavioral rule by entering an acceptance or refusal input in response to the displayed behavioral rule*. As a result, there is exhibited an effect that the user is capable of creating a program with ease. Moreover, according to the present invention, there is further included a step of *adding a modified behavioral rule* to already set behavioral rules.” (col. 63, lines 1-12)

“To be more specific, the user is capable of generating a program through user interfaces. In addition, the user is also capable of carrying out simulation of a generated program by carrying out the same operations as the programming. Furthermore, it is needless to say that the *user is also capable of modifying a program*.” (col. 41, lines 16-22)

“In addition, according to the present invention, a behavioral rule modification means allows the user to modify a behavioral rule displayed by the system generated rule display means by entering an acceptance or

refusal input in response to the displayed behavioral rule.” (col. 64, lines 20-24)

In other words, the user either modifies the program directly, or simply accepts or refuses suggested behavioral rules. Nowhere does Ohara teach or suggest automatically modifying the existing graphical program without direct user input specifying the modification to the existing graphical program during said modifying.

Thus, for at least the reasons provided above, Applicant submits that claim 112 and those claims dependent therefrom are patentably distinct and non-obvious over Ohara, and are thus allowable.

Applicant also asserts that numerous ones of the dependent claims recite further distinctions over the cited art. However, since the independent claims have been shown to be patentably distinct, a further discussion of the dependent claims is not necessary at this time.

Removal of the 102 rejection of claims 65 – 124 is respectfully requested.

New Claims

Applicant respectfully submits that new claims 125-145 are similarly patentably distinct and non-obvious over Ohara. For example, claims 125-134 are dependent from independent claim 118, which has been shown above to be allowable. Independent claim 135 includes similar limitations as claim 65, and so the above arguments apply with equal force to claim 135. Thus, for at least the reasons provided above, Applicant submits that claim 135 and those claims dependent therefrom are patentably distinct and non-obvious over the Ohara.

CONCLUSION

Applicant submits the application is in condition for allowance, and an early notice to that effect is requested.

If any extensions of time (under 37 C.F.R. § 1.136) are necessary to prevent the above referenced application(s) from becoming abandoned, Applicant(s) hereby petition for such extensions. If any fees are due, the Commissioner is authorized to charge said fees to Meyertons, Hood, Kivlin, Kowert & Goetzel PC Deposit Account No. 50-1505/5150-44100/JCH.

Also enclosed herewith are the following items:

- ☒ Return Receipt Postcard
- ☒ Information Disclosure Statement

Respectfully submitted,



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